8200156

TO ALL TO WHOM THESE; PRESENTS; SHAYIL COME;

Nickerson American Plant Breeders, Inc.

Colherens. There has been presented to the

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A CONV OF WHICH IS DESCRIPTION OF WHICH ARE CONTAINED IN THEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE THE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE PRICAST SO, INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT WARRETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT (S) AND THE SECRESORS, HEIRS OF ASSIGNS OF THE SAID APPLICANT (S) FOR THE TERM OF Eighteen LEAR FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE RECURED TES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCHOR OTHERS FROM SELLING THE WALETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OF PROTING IT, OR EXPORTING IT, OR DESIGN IN PRODUCING A HYBRID OR DIFFERENT THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. NITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

BARLEY

'Bridger-82'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington day of September the year of our Lord one thousand nine hundred and eighty-five.

THE STATE OF STATE OF

No.

nt Variety Protection Offi

visitalis communication		UNITED STATES DEPARTME AGRICULTURAL MARK LIVESTOCK, POULTRY, GRA	FORM APPROVED OMB NO. 40-R3822 No certificate for plant variety protection may						
- denders des extret		PLICATION FOR PLANT VARIESTRUCTIONS: See Reverse.	TY PROTECTION	N CERTIFICATE		mpleted application form			
. Westernander	1a	. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAMI	1b. VARIETY NAME		AL USE ONLY			
	2B77-325A (NAPB 12)		Bridger-82		8200156				
أدرسه سيخت سائدت والماديد	2. Rai	KIND NAME rley	3. GENUS AND SPE		FILING DATE 8/23/82	TIME AXM. 2:30 P.M.			
		-		· .	FEE RECEIVED	DATE 0 / 22 / 22			
\$	4. Gra	FAMILY NAME (BOTANICAL) amineae	5. DATE OF DETER 1. March, 19 2. March, 19	977	\$ 500.00 \$ 250.00	8/23/82 8/28/85			
8	6.	NAME OF APPLICANT(S)		301 t and No. or R.F.D. No.,	City. State. and ZIP	8. TELEPHONE AREA			
N N N	Ize. ortl	KERSON A American Plant Breeders, I	Code) 5201 Johnson Duju		9	913-384-4940 KS 303-532-3721 CO			
CALLIS .	9.	IF THE NAMED APPLICANT IS NOT A PE ORGANIZATION: (Corporation, partnersh Partnership	ip, association, etc.)	Stamford, C	Ī.	11. DATE OF INCOR- PORATION 3/9/73			
AND THE CONTRACT OF THE PROPERTY OF THE PROPER	12.	ALL PAPERS: Giles Dixon R.E. HEINER R.E. Heiner or C. Bruns NAPB, P.O. Box 2955 NAPB, P.O. Box 30							
-	13.	Mission, Mis		Bertno	oud, CO 80513	110185			
tro-iconstrona		13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)							
A CONTRACTOR AND A CONTRACTOR A		13B. Exhibit B, Novelty Statement.							
STANUA ESANAS		X 13C. Exhibit C, Objective Descr	ive Description of the Variety (Request form from Plant Variety Protection Office.)						
ASSTOCKED CONTRACTOR		13D. Exhibit D, Additional Des							
Missory Nicotototototototy (A	14a.	DOES THE APPLICANT(S) SPECIFY THAT SEED? (See Section 83(a). (If "Yes," answer	T SEED OF THIS VARI er 14B and 14C below.)	IETY BE SOLD BY VAI	RIETY NAME ONLY AS	A CLASS OF CERTIFIED			
er e	14b.	DOES THE APPLICANT(S) SPECIFY THA LIMITED AS TO NUMBER OF GENERATIONS	T THIS VARIETY BE		B, HOW MANY GENERA BREEDER SEED?	ATIONS OF PRODUC-			
·		X YES NO	·	Y FOUNDATION	X REGISTERED	CERTIFIED			
	15a.	DID THE APPLICANT(S) FILE FOR PROT name of countries and dates.)	ECTION OF THIS VAF	RIETY IN OTHER COU	NTRIES? TYES	NO (If "Yes," give			
rior transference de l'Albert									
avent resources	15b.	HAVE RIGHTS BEEN GRANTED THIS VA	ARIETY IN OTHER CO	UNTRIES? YES	X NO (If "Yes,"	give name of countries			
90000000000000000000000000000000000000		- 	:						
10.00000000000000000000000000000000000				e du de la Sala de la com					
sked-oracokonka ee	16.	DOES THE APPLICANT(S) AGREE TO TH	E PUBLICATION OF H	IIS/HER (THEIR) NAM	E(S) AND ADDRESS IN	THE OFFICIAL			
- Constitution -	17.	The applicant(s) declare(s) that a viable replenished upon request in accordance	e sample of basic seed with such regulation	d of this variety will bus as may be applicab	e furnished with the a	pplication and will be			
THE THE PROPERTY OF THE PARTY O		The undersigned applicant(s) is (are) th variety is distinct, uniform, and stable a 42 of the Plant Variety Act.	e owner(s) of this se	xually reproduced no	vel plant variety, and l	believe(s) that the provisions of Section			
Digital de la constant de la constan		Applicant(s) is (are) informed that false	in can jeopardize pro	tection and result in p	enalties.				
		19 Jul 1982	A3 Hene	N.					
_		(DATE)		(1)	SIGNATURE OF APPLIC	CANT)			
-	· .	8-9-1982			Wiscon	1			
	FORM	(DATE) M GR-470 (1-78)			IGNATURE OF APPLIC	CANT)			

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and \$500 fee (\$250 filing fee and \$250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.

ITEM

- Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.
- Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.
- Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties:

 (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.



Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

- Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.
- If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)
- See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

Exhibit A

Origin and breeding history of Bridger-82 (2B77-325A; NAPB-12; Bridger-82)

Pedigree: Zephyr/Klages//RPB72456

Date of Cross: The Zephyr/Klages cross was made in the spring 1974 greenhouse; the F1 was crossed onto RPB72-456 in the fall 1974 greenhouse. The F2 seed from the three-way cross was produced in the spring 1975 greenhouse. RPB72-456 is a two-rowed line developed by Nickerson RPB Limited and originates from the cross Inra CF7/HP 120322.

History: F2 plants were grown at Great Falls, Montana and Berthoud, Colorado in 1975. Single plant selections were advanced to F3 plots and grown at Great Falls, Montana in 1976. The F4 bulk was yield tested in 1977 at Berthoud, Colorado and 5 single plants were selected for winter increase as F₅ plant selections in Christchurch, New Zealand during the 1977-78 offseason. In 1978 the original seed tracing to the F4 bulk was yield tested as an F5 bulk at Berthoud, Colorado; Great Falls, Montana; and Twin Falls, Idaho. In addition the 5 subfamilies tracing to single plant F5 selections were yield tested as F6 bulks in Berthoud, Colorado. From the five lines, subfamily A was chosen to continue with and the line designation of 2B77-325A was used. This line served as the pure seed and yield trial source in 1979. This line has been tested by NAPB in Berthoud, Colorado from 1979 to 1982. It was also tested in Twin Falls and Nampa, Idaho trials in 1979 and 1980, respectively. 2B77-325A was entered as NAPB-12 in Montana State University trials at eleven locations within the state in 1979 and is still under test (1982) at these eleven locations. NAPB-12 was also in Colorado State University tests.

Purification was initiated in 1979. A small percentage (.2%) of blue-aleuroned seed was noticed in the F5 derived F7 pure seed increase. In the fall of 1979 a bulk seed lot was water-soaked for four hours to allow accurate aleurone color determinations. Several hundred seeds were planted in the fall 1979 greenhouse and 300 plants were harvested. Head row purifications were initiated in the summer of 1980 in Berthoud, Colorado and only two head rows out of 300 were discarded. This seed was increased inChristchurch, New Zealand during the winter (80-81) and provided breeder seed for foundation seed production in 1981.

Head selections have been made each year and are grown to constitute breeder seed. The original source of breeder seed came from bulked seed from the 1980 300 (298 selected) head rows. Breeder and Foundation seed fields were stable and uniform in 1982.

Exhibit B Statement of Novelty

Bridger-82 most closely resembles Summit in appearance; but can be easily distinguished by the following morphological characteristics:

- Bridger-82 has long rachilla hairs, Summit has short rachilla hairs.
- Bridger-82 has long hairs on the rachis, Summit has short hairs on the rachis.
- Bridger-82 has hairs confined to a band on the glume, Summit has hair restricted to the midline.

(See Exhibit C)

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION
BELTSVILLE, MARYLAND 20705

EXHIBIT C (Barley)

OBJECTIVE DESCRIPTION OF VARIETY

NAME OF APPLICANT(S)	FOR OFFICIAL USE ONLY
North American Plant Breeders	PVPO NUMBER
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code)	8200156
5201 Johnson Dr., Mission, KS 66205	DESIGNATION
Place the appropriate number that describes the varietal character of this variety in Place a zero in first box (i.e. 089 or 09) when number is either 99 or les	the boxes below. s or 9 or less.
I. GROWTH HABIT:	
	th: 1 = PROSTRATE 2 = SEMIPROSTRATE 3 = ERECT
. MATURITY (50% Flowering):	
1 = EARLY (California Mariout) 2 = MIDSEASON (Betzes) 3 = LATE (Frontie	r)
No. of days Earlier than	JT 3 = CONQUEST 4 = DICKSON
No. of days Later than	ran
, PLANT HEIGHT (From soil level to top of head):	
1 = SEMIDWARF 2 = SHORT (Celifornia Mariout) 3 = MEDIUM TALL (Betzes) 4 = TALL (Conquest)
Cm. Shorter than	
Cm. Tailer than	
STEM: 1 = 0 - 3 cm. 2 = 3 - 10 cm.	•
Exertion (Flag to spike at maturity): 3 = 10 - 15 cm. Anthocyanin	: 1 = ABSENT 2 = PRESENT
NO. OF NODES (Originating from node above ground)	
Collar Shape: 1 = CLOSED 2 = V-SHAPED 3 = OPEN Shape of Nec	1 = STRAIGHT 2 = SNAKY :k: 3 = OTHER (Specify)
LEAF:	
Basal leaf sheath (seedling): 1 = GLABROUS 2 = PUBESCENT Position of fla	1 = DROOPING ag leaf (at boot stage): 2 = UPRIGHT
2 Waxiness: 1 = ABSENT (Giossy) 2 = SLIGHTLY WAXY 1 4 MM. WID	TH (First leaf below flag leaf)
3 8 CM. LENGTH (First leaf below flag leaf) 2 Anthocyanin i	in leaf sheath: 1 = ABSENT 2 = PRESENT
HEAD:	1 = LAX 2 = ERECT (Not dense)
Type: 1 = TWO-ROWED 2 = SIX-ROWED 1 Density:	1 = LAX 2 = ERECT (Not dense) 3 = ERECT (Dense) average length of internodes 4 mm's
Shape: 1 = TAPERING 2 = STRAP 3 = CLAVATE 4 = OTHER (Specify) 2 Waxiness:	1 = ABSENT (Glossy) 2 = SLIGHTLY WAXY 3 = WAXY
3= 1/4 - 1/2 OF HEAD	m edge): 1 = LACKING 2 = FEW 3 = COVEREI
GLUME: 1 = 1/3 OF LEMMA 2 = 1/2 OF LEMMA 3 = MORE THAN 1/2 OF LEMMA 3 Hairs: 1 = 1/3	NONE 2 = SHORT 3 = LONG
Hair covering: 1 = NONE 2 = RESTRICTED TO MIDDLE 3 = CONFINED TO	BAND 4 = COMPLETELY COVERED
Awns: 1 = LESS THAN EQUAL TO LENGTH OF GLUMES 2 = EQUAL TO LEN 3 = MORE THAN EQUAL TO LENGTH OF GLUMES	IGTH OF GLUMES
Awn Surface: 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH	4

FORM LPGS-470-5 (4-78)	(Reverse)	where the same of	0200100							
8. LEMMA:										
1 = AWNLESS 2 = AWNLETS ON CENTRAL ROWS, AWNLESS ON LATERAL ROWS 3 = SHORT ON CENTRAL ROWS, AWNLETS ON LATERAL ROWS 4 = SHORT (less than equal to length of spike) 5 = LONG (longer than spike) 6 = HOODED										
3 Awn Surface: 0 = AWNLESS 1 = SMOOTH 2 = SEMISMOOTH 3 = ROUGH										
2 Teeth: 1 = ABSE	Teeth: 1 = ABSENT 2 = FEW 3 = NUMEROUS Teeth: 1 = ABSENT 2 = PRESENT									
Shape of base: 1 = DEPRESSION 2 = SLIGHT CREASE 2 Rachilla Hairs: 1 = SHORT 2 = LONG										
9. STIGMA:										
2 Hairs: 1 = FEW	2 = MANY									
10. SEED:										
Type: 1 = NAKED 2 = COVERED Hairs on Ventral Furrow: 1 = ABSENT 2 = PRESENT										
	2 Length: 1 = SHORT (8.0 mm.) 2 = SHORT TO MIDLONG (7.5 - 9.0 mm.) 3 = MIDLONG (8.5 - 9.5 mm.) 5 = LONG (10.0 mm.)									
3 Wrinkling of hull:	1 = NAKED 2 = SLIGHTLY WRINKLED	3 = SEMIWRINKLED	4 = WRINKLED							
Aleurone Color: 1 = COLORLESS (White or Yellow) 2 = BLUE										
0 0 PERCENT AB	ORTIVE	4 3 GMS, PER 100	0 SEEDS							
11. DISEASE: (0 = Not 1	Tested, 1 = Susceptible, 2 = Resistant)		and the first of the second second							
0 SEPTORIA	0 NET BLOTCH	SPOT BLOTCH	2 POWDERY MILDEW							
LOOSE SMUT	0 BACTERIAL BLIGHT	0 COVERED SMUT	0 FALSE LOOSE SMUT							
] STEM RUST	0 LEAF RUST	0 SCAB	0 scald 2							
O AY	0 BSMV	0 BYDV	OTHER (Specify)							
12. INSECT: (0 = Not ter	ted, 1 = Susceptible 2 = Resistant)	•	and the state of t							
0 GREEN BUG	0 ENGLISH GRAIN APHID	0 CHINCH BUG	0 ARMYWORM							
0 GRASS HOPPERS	0 CERIAL LEAF BETTLE	0 OTHER (Specify)								
	0 GP 0 A	0 B 0 C								
HESSIAN FLY RA	0 D 0 E	0 F 0 G								
13. CHEMICAL (0 = Not	Tested, 1 = Susceptible, 2 = Resistant)									
0 DDT 0 OTHER (Specify)										
14. INDICATE WHICH VARIETY MOST CLOSELY RESEMBLES THAT SUBMITTED:										
CHARACTER	NAME OF VARIETY	CHARACTER	NAME OF VARIETY							
Plant tillering	Summit	Seed size	Summit							
Leaf size	Summit	Coleoptile elongation	Summit							
Leaf color	Summit	Seedling pigmentation	Summit							
Leaf carriage	Summit									
REFERENCES: The following publications may be used as a reference aid for the standardization of character descriptions and										

terms used in this form:

1. Wiebe, G. A., and D. A. Reid, 1961, Classification of Barley Varieties Grown in the United States and Canada in 1958, Technical Bulletin No. 1224, U.S. Dept. of Agriculture.

2. Reid, D. A., and G. A. Wiebe, 1968, Barley: Origin, Botany, Culture, Winter Hardiness, Genetics, Utilization, Pests, Agriculture Handbook No. 338, U.S. Dept. of Agriculture. pp. 61 - 84.

3. Malting Barley Improvement Association, Milwaukee, Wisconsin, 1971, Barley Variety Dictionary.

Exhibit D.

Botanical Description

Bridger-82 is a 2-rowed midseason spring barley. The spikes are lax, with rough awns and long, covered rachis hair. The glumes are approximately 1/2 the length of the lemma, with long hair confined to a band. The kernels are covered, short to midlong in length with white aleurone and long hairs on the rachilla. The hull is semi-wrinkled with very few or no teeth. The lemma base is a depression shape. Leaves (first leaf below the flag leaf) are approximately 38 cm's in length and 14 mm's in width. The flag leaf is drooping or at a 90 degree angle from the stem at boot stage. Anthocyanin is present in the auricle, lemma and glume awn tips, and lateral and central nerves of the seed. A small amount of anthocyanin is sometimes seen in the leaf sheath also. Bridger-82 has been bred and developed by North American Plant Breeders.

BILL OF SALE AND ASSIGNMENT

KNOW ALL MEN BY THESE PRESENTS that AGRIPRO BIOSCIENCES INC., a Delaware corporation (hereinafter referred to as "Seller"), pursuant to that certain Asset Purchase Agreement of even date herewith by and between Seller and AGR ACQUISITION CORPORATION, a Delaware corporation (hereinafter referred to as "Buyer") and for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, does hereby grant, bargain, sell, assign, convey and deliver unto Buyer, all of Seller's right, title and interest in and to the plant varieties owned/registered by Seller and more particularly set forth on Exhibit A attached hereto for which PVP Certificates have been issued by or may be pending before the U. S. Department of Agriculture.

TO HAVE AND TO HOLD UNTO PURCHASER, its successors and assigns

IN WITNESS WHEREOF, Seller has executed this Bill of Sale and Assignment as of the 30th day of June, 1994.

AGRIPRO BIOSCIENCES INC.

BY:	U.a. Zama	
Title:	Prosident	

STATE OF KANSAS, COUNTY OF JOHNSON

WITNESS my hand and Notarial Seal at office the day and year above written.

Notary Public

My Commission Expires:

My Annt Frn

ALMA M. WEAVER
_NOTARY PUBLIC

ly Appl. Exp. STATE OF KANSAS

State of Delaware Office of the Secretary of State

I, EDWARD J. FREEL, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF AMENDMENT OF "AGR ACQUISITION CORPORATION", CHANGING ITS NAME FROM "AGR ACQUISITION CORPORATION" TO "AGRIPRO SEEDS, INC.", FILED IN THIS OFFICE ON THE THIRTIETH DAY OF JUNE, A.D. 1994, AT 4:30 O'CLOCK P.M.

A CERTIFIED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS FOR RECORDING.

SECRETARY OF STATE AUTHENTICATION:

8100

2394087

ABI SHAWNEE MSN

CERTIFICATE OF AMENDMENT
OF
CERTIFICATE OF INCORPORATION
OF
AGE ACQUISITION CORPORATION

AGR Acquisition Corporation, a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware,

DOES HEREBY CERTIFY:

FIRST: that the Board of Directors of said corporation, by the unanimous written consent of its members filed with the minutes of the Board, adopted a resolution proposing and declaring advisable the following amendment to the Certificate of Incorporation of said corporation:

RESOLVED, that the Certificate of Incorporation of this corporation be amended by changing the Article thereof numbered "ARTICLE I" so that, as amended, said Article shall be and read as follows:

"ARTICLE I

Name

The name of the corporation (hereinafter called the 'Corporation') is Agripro Seeds, Inc."

SECOND: That in lieu of a meeting and vote of stockholders, the sole shareholder of the corporation has given unanimous written consent to said amendment in accordance with the provisions of Section 228 of the General Corporation Law of the State of Delaware.

THIRD: That the aforesaid amendment was duly adopted in accordance with the applicable provisions of Sections 242 and 228 of the General Corporation Law of the State of Delaware.

FOURTH: That the capital of said corporation shall not be reduced under or by reason of said amendment.

IN WITNESS WHEREOF, said AGR Acquisition Corporation has caused this certificate to be signed by Gary T. Hancock, its President, and attested by Ann Steelman, its Secretary, this 30 day of June, 1994.

AGR ACQUISITION CORPORATION

BY;

Gary T./ Hangock, President

ATTEST:

BY: Ann Steelman, Secretary